

Amendments to the Specification: ¹

Please replace paragraph [0028] with the following amended paragraph:

Figure 3 represents a sensing unit 212 ~~fluid delivery system~~
210 generally equipped with the same components, including a
sensing element 220, circuitry 222, and electrical connector 224, as
described for the embodiments of Figures 1 and 2, but adapted for
being placed inline with, for example, a catheter, Y-tie, septum, IV
primer/drip chamber, filter, etc. For example, the inlet 232 on the
housing 218 of the sensing unit 212 can be configured to receive a
Y-tie equipped with a septum port, while the outlet 234 of the
housing 218 is configured to be coupled to a catheter tube. The
same benefits as described for the embodiments of Figures 1 and 2
can be ascribed to a fluid delivery system ~~the fluid delivery system~~

¹ All references to pages and paragraphs in Applicant's electronically-filed application are those inserted by the USPTO authoring software and appearing in U.S. Published Patent Application No. 2005/0235759, which is the publication of the present application.

~~210 if~~ similarly equipped with the sensing unit 212.

Please replace paragraph [0035] with the following amended paragraph:

Figure 4 represents such an infusion system 310 as comprising a module 312 mounted to a standard intravenous pole 344, alongside which an intravenous tube 314 hangs for dispensing a drug or other medicinal fluid. The tube 314 flows into an inline sensing unit that is coupled to the module 312 through an electrical connector 324. The sensing unit can generally be of the type represented in Figure 3, and is therefore represented with reference number 212. As such, the sensing unit 212 comprises a housing 218, an inlet for receiving the fluid from the tube 314, an outlet for discharging the fluid from the housing 218, at least one cavity between the inlet and outlet, and a sensing element (e.g., 220 in Figure 3) mounted within the cavity. In contrast to the sensing unit 212 ~~system 210~~ of Figure 3, the electronic circuitry (e.g., 222 in Figure 3) for communicating with the sensing element 220 ~~element~~ within the unit 212 is preferably located within the module 312. The

module 312 is also equipped with a display 328 for providing a visual indication of the operation of the system 310. An AC power cord (not shown) or rechargeable battery (not shown) may be employed to power both the module 312 and the sensing unit 212. The module 312 is also shown as being equipped with audible and visual alarms 340 for warning nearby caregivers of any errors encountered during operation of the system 310, e.g., an improper dose rate, improper density, as well as notifying the caregiver that the intended dose has been delivered, etc. The module 312 can be seen to have other warning indicators and controls, such as a low battery warning light 342 and reset/confirm buttons 346. Finally, a shut-off valve 338 is shown as being mounted to the side of the module 312 for stopping flow of the fluid through the intravenous tube 314 in response to the electrical output of the electronic circuitry 222 within the module 312. The module 312 is preferable connected to a computer 326 by which the operation and status of the module 312 can be controlled and monitored. In the embodiment of Figure 4, the module 312 does not contain any components that contact the fluid, such that and the module 312 constitutes a reusable portion of the infusion system 310

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and the sensing unit 212 constitutes a separable disposable portion
of the infusion system 310.